Economic Impacts of Broadband Access on Washington Agriculture:

A regional Assessment of Clallam, Grays Harbor, Jefferson, Kitsap, and Mason Counties

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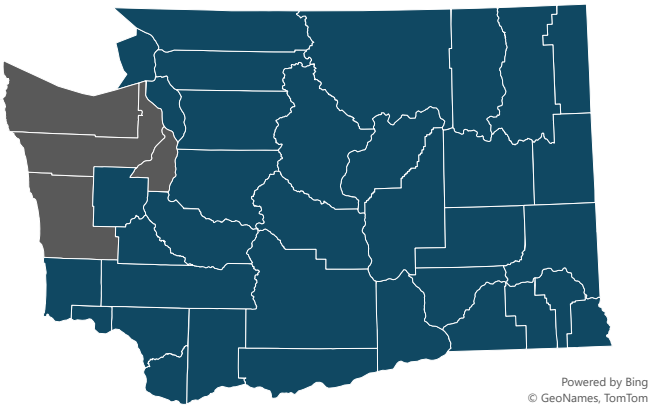
This Fact Sheet provides the economic overview of broadband availability and the associated agricultural impacts in the 5-county region of Clallam, Grays Harbor, Jefferson, Kitsap, and Mason counties.



Broadband access in this region has evolved over the years in terms of access, quality, and adoption. The primary crop in the region is Shellfish (76%), Pasture (10%), Grass Hay (9%), Fallow (1%), Corn (1%), and Other (4%).[2] Total agricultural value of all commodities produced in the region has grown from $95.8 million to $180.1 million in this region over the last decade.

Table 1 shows the estimated values of select commodities produced in 2023 by county within the region. Table 1 only lists a set of the key commodities produced and, as such, does not reflect the entire value of all agricultural production. Shellfish and Pasture, for example, are the largest commodity types in the region and are not included.

Table 1: *2023 Region 5 Production Value Estimates by County and Commodity*

County	Clallam	Grays Harbor	Jefferson	Kitsap	Mason	Regional Total
Wheat	$19,607	$152,330	$0	$0	$0	**$171,937**
Barley	$293,413	$51,124	$0	$0	$0	**$344,537**
Apples	$84,772	$63,579	$243,721	$0	$0	**$392,072**
Cherries	$7,515	$0	$0	$0	$0	**$7,515**
Pears	$15,974	$0	$15,974	$0	$0	**$31,948**
Grapes	$7,682	$15,364	$61,455	$72,978	$53,773	**$211,251**
Blueberries	$35,431	$4,429	$22,145	$8,858	$4,429	**$75,291**
Corn	$251,505	$2,602,238	$0	$8,384	$10,060	**$2,872,187**
Grasses and Hay	$279,682	$52,060	$0	$0	$0	**$331,742**
Milk	$4,534,682	$8,554,289	$0	$560,523	$0	**$13,649,494**
County Sub Total	***$5,530,263***	***$11,495,414***	***$343,294***	***$650,742***	***$68,262***	***$18,087,975***

Source: USDA NASS, WSDA, and author's calculations

Ten percent of the past decade's growth is estimated to be a result of broadband enhancements and the adoption of precision agriculture. Without access to these new technologies agriculture in the region

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[2] Commodities are reported on an acreage basis rather than a value basis. Apple and potatoes, generate more value per acre, but compose much less acreage than wheat and forage crops.

would not have seen the growth, or growth rate, that has helped to make farms more efficient and profitable. This allows agriculture in the region to remain competitive and on the cutting edge of efficiency.

The impacts of broadband access and subsequent precision ag technology utilization generate more than simply increases in farm output and reduced input costs. Those gains in production efficiency ripple through the economy as increased spending, resulting from increases in farm output and increased income for farm households.[3] Table two shows the direct agricultural gains in sales, gross regional product, household income and jobs for the region, all resulting from broadband access and utilization. The direct sales amounted to just over $8.9 million. Those direct gains resulted in increased farm-to-business transactions within the region of roughly $1.6 million (indirect contributions). Increased farm profits improved farmer's take-home pay and household expenditures. associated consumer-to-business transactions, produced another $3.1 million (induced contributions). Total sales of $13.6 million in the region were a result of broadband access and utilization. This occurred in two ways: farm purchases of business inputs (everything from seed and fertilizer to business services including accounting and legal fees), and the personal purchases of both farmers and their employees (eating in local restaurants, attending a local sporting event, buying clothes for their families, etc.).

Table 2: *Regional Economic Impacts from Agricultural Productivity Under Broadband Expansion*

	Sales	GDP	Income	Jobs
Direct	$8,902,591	$5,327,421	$4,145,888	315
Indirect	$1,573,121	$609,454	$376,663	7
Induced	$3,120,303	$1,758,618	$1,178,682	22
Total	$13,596,014	$7,695,493	$5,701,233	344

Source: IMPLAN and author's calculations

The $13.6 million in total sales translated to $7.7 million in total Gross Regional Product (GRP) for 2023. Household incomes attributable to gains in broadband access and precision agricultural utilization amounted to $5.7 million. The agricultural expenditures and gains from broadband infrastructure supported a total of 344 jobs within the 5-county economy. Broadband access and gains from precision agriculture can then claim responsibility for 0.1% of regional employment.

GRP is the economists' primary measure of economic activity because it removes the double counting included in the sales figures, though it is still larger than the household income measure. As such broadband expansion, access, and utilization in the 5-county region is responsible for $7.7 million of the 2023 regional economy.

[3] Farmer household income is a gross measure. Reduced expenditures on fertilizers, for example, mean less farm spending on local vendor purchases that also ripple through the economy.